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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,062	12/14/2001	Toshihisa Matsuo	70904/56790	5485
21874	7590	03/04/2005	EXAMINER	
EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205			TABATABAI, ABOLFAZL	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,062

Applicant(s)

MATSUO, TOSHIHISA

Examiner

Abolfazl Tabatabai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/22/04, 8/6/02, 7/15/02, 3/5/02
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 4, 6, 7 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyashita et al (U S 6,735,160 B1).

Regarding claim 1, Miyashita discloses an optical recording medium in which main information (fig. 2 element 100 and column 15, lines 63-67), and additional information required for reproducing the main information are recorded (column 11, lines 41-49),

wherein:

the additional information is physically formed (column 7, lines 22-33); and, copyright protection information by digital watermarking is embedded in the main information (column 5, lines 12-15; column 7, lines 22-23 and column 11, lines 41-52).

Regarding claim 2, Miyashita discloses an optical recording medium in which main information (fig. 2 element 100 and column 15, lines 63-67), and additional information required for reproducing the main information are recorded (column 11, lines 41-49),

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wherein:

the additional information is formed by pits (column 10, lines 11-12), a depth of the pits being formed according to the additional information (column 24, lines 54-64); and,

copyright protection information by digital watermarking is embedded in the main information (column 5, lines 12-15; column 7, lines 22-23 and column 11, lines 41-52).

Regarding claim 4, Miyashita discloses an optical recording medium in which main information (fig. 2 element 100 and column 15, lines 63-67), and additional information required for reproducing the main information are recorded (column 11, lines 41-49),

wherein:

the additional information is formed by pits (column 10, lines 11-12), all of the pits have an equal depth and are formed at a position shifted from a regular pit position in a track direction according to the additional information (column 17, lines 58-67; column 18, lines 1-2 and column 20, lines 27-36); and,

copyright protection information by digital watermarking is embedded in the main information (column 5, lines 12-15; column 7, lines 22-23 and column 11, lines 41-52).

Regarding claim 6, Miyashita discloses a reproducing apparatus comprising: reproducing means for reproducing an optical recording medium which has been loaded (column 11, lines 41-49); and,

reproduction restricting means for judging that the optical

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recording medium which has been loaded is the one by unauthorized copying (fig.15 element 15d; column 5, lines 3-11; column 11, lines 41-49 and column 23, lines 49-56), so as to restrict reproduction by said reproducing means (column 5, lines 3-11), when the optical recording medium reproduced by said reproducing means is an optical recording medium in which main information, and additional information required for reproducing the main information are recorded (column 11, lines 41-49), the additional information being physically formed (column 7, lines 22-33), the main information being embedded with copyright protection information by digital watermarking, and when said reproducing means does not reproduce the additional information and reproduces the copyright protection information (column 5, lines 12-15; column 7, lines 22-23 and column 11, lines 41-52).

Claims 7 and 9 are similarly analyzed as claim 6 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 5, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al (U S 6,735,160 B1) in view of Ueki (U S 6,678,236 B1).

Regarding claim 3, Miyashita is silent about the specific details regarding discloses the optical recording medium according to claim 2, wherein: the pits include a first pit having a first depth and a second pit having a second depth (column 2, lines 40-

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53), and when a wavelength of a reproduction light beam is λ and a refractive index of the optical recording medium is n , the first depth is less than $\lambda/4n$, and the second depth exceeds $\lambda/4n$.

In the same field of endeavor (information recording system), however, Ueki discloses information recording medium system for recording and reproducing information comprising the pits include a first pit having a first depth and a second pit having a second depth, and when a wavelength of a reproduction light beam is λ and a refractive index of the optical recording medium is n , the first depth is less than $\lambda/4n$, and the second depth exceeds $\lambda/4n$ (column 10, lines 2-25).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use depth of pits as taught by Ueki in the system of Miyashita because Ueki provides Miyashita an improved system for recording information on a recording medium wherein the predetermined information comprises information of copyright protection related to the contents information stored in the data area and also an improved system for reproducing information from a recording medium.

Regarding claim 5, Miyashita an optical recording medium comprising: copyright protection information by digital watermarking is embedded in the main information (column 5, lines 12-15; column 7, lines 22-23 and column 11, lines 41-52). However, Miyashita is silent about the specific details regarding an error correcting code with respect to main information is provided in the form of pits by a unit of error correcting code block, wherein:

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information in plural predetermined regions in the error correcting block, which is the main information corresponding to the error correcting code, is changed and recorded as the main information,

In the same field of endeavor (information recording system), however, Ueki discloses information recording medium system for recording and reproducing information comprises an error correcting code (column 11, lines 34-39) with respect to main information is provided in the form of pits by a unit of error correcting code block (column 10, lines 33-50), wherein:

information in plural predetermined regions in the error correcting block, which is the main information corresponding to the error correcting code (column 10, lines 33-50), is changed and recorded as the main information (column 13, lines 22-24).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use error correcting code as taught by Ueki in the system of Miyashita because Ueki provides Miyashita an improved system for recording information on a recording medium wherein the predetermined information comprises information of copyright protection related to the contents information stored in the data area and also an improved system for reproducing information from a recording medium.

Regarding claim 8, Miyashita a reproducing apparatus comprising:

reproducing means for reproducing an optical recording medium which has been loaded (column 11, lines 41-49); and,

reproduction restricting means for judging that the optical recording medium which has been loaded is the one by unauthorized copying (fig. 15 element 15d; column 5, lines 3-11 and column 23, lines 49-56), so as to restrict reproduction by said reproducing means (column 5, lines 3-11), when the optical recording medium reproduced by said reproducing means is an optical recording medium in which main information, and additional information required for reproducing the main information are recorded (column 11, lines 41-49), the additional information being formed by pits (column 10, lines 11-12), the main information being embedded with copyright protection information by digital watermarking (column 5, lines 12-15; column 7, lines 22-23 and column 11, lines 41-52).

However, Miyashita is silent about the specific details regarding a depth of the pits is formed according to the additional information, a first pit having a first depth and a second pit having a second depth, the first depth being less than $\lambda/4 n$ and the second depth exceeding $\lambda/4 n$ where λ is a wavelength of a reproduction light beam and n is a refractive index of the optical recording medium, and when said reproducing means does not reproduce the additional information and reproduces the copyright protection information.

In the same field of endeavor (information recording system), however, Ueki discloses information recording medium system for recording and reproducing information comprises a depth of the pits is formed according to the additional information (column 10, lines 2-25), a first pit having a first depth and a second pit having a second depth (column 2, lines 40-53), the first depth being less than $\lambda/4 n$ and the second depth

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exceeding $\lambda/4n$ where λ is a wavelength of a reproduction light beam and n is a refractive index of the optical recording medium, and when said reproducing means does not reproduce the additional information and reproduces the copyright protection information (column 10, lines 2-25).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use depth of pits as taught by Ueki in the system of Miyashita because Ueki provides Miyashita an improved system for recording information on a recording medium wherein the predetermined information comprises information of copyright protection related to the contents information stored in the data area and also an improved system for reproducing information from a recording medium.

Claim 10 is similarly analyzed as claim 5 above.

Other prior art cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent (U S 6,252,685 B1) to Yokochi is cited for optical recording medium and apparatus of judging fake thereof.

U.S. Patent (U S 6,338,889 B1) to Shibata et al is cited for optical information recording medium.

U. S. Patent (U S 6,580,682 B1) to Kamperman et al is cited for system for copy protection of recorded information.

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U. S. Patent (U S 5,838,658) to Nakane et al is cited for optical disc.

U. S. Patent (U S 4,569,038) to Nagashima et al is cited for optical disk, high density optical disk system, and high density recording/ reproducing method using the optical disk.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to ABOLFAZL TABATABAI whose telephone number is (703) 306-5917.

The Examiner can normally be reached on Monday through Friday from 9:30 a.m. to 7:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mehta Bhavesh M, can be reached at (703) 308-5246.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abolfazl Tabatabai

Patent Examiner

Group Art Unit 2625

March 3, 2005

A. Tabatabai

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PRIMARY EXAMINER